

Profiles of Foreign Direct Investment in U.S. Energy 1984

Energy Information Administration
Washington, D C



Table 8. Foreign Crude Oil and Natural Gas Liquids Reserve Interest for FRS Companies, 1983 and Percent Change from 1982

Crude Oil and Reserves	Total Foreign	Canada	OECD Europe	Africa	Mideast	Other Eastern Hemisphere	Other Western Hemisphere
	(million barrels)						
1983							
Total Crude and NGL Reserve Interest ^a . .	14,767	2,199	4,577	3,057	2,033	2,046	856
	(percent)						
Percent Distribution by Geographic Region, 1983							
Total Crude and NGL Reserve Interest . .	100.0	14.9	31.0	20.7	13.8	13.9	5.8
Percent Change from 1982							
Total Crude and NGL Reserve Interest . . .	-0.9	6.8	4.2	-18.5	-2.5	22.1	-9.2

^aThe components of total foreign crude oil and natural gas liquids reserve interest are net ownership interest reserves (90.4 percent) and "Other Access" reserves (9.6 percent). "Other Access" reserves include proportional interest in investee reserves and foreign access reserves.

Note: Total may not equal sum of components due to independent rounding. While four of the FRS companies are foreign-affiliated, their foreign reserves are a small portion of the FRS total.

Source: Energy Information Administration, Performance Profiles of Major Energy Producers 1983, DOE/EIA-0206(83) (Washington, D.C., February 1985).

Oil and Gas Production

Table 9 reports U.S. oil (including NGL) and natural gas production of identified foreign-affiliated U.S. companies for which U.S. production data were available (also, see Figure 4). In 1984, foreign-affiliated companies' share of U.S. crude oil and NGL production held steady at about 13 percent as compared to the prior year. Of the increase in foreign-affiliated companies' U.S. oil production of 25 thousand barrels per day between 1983 and 1984, 7 thousand barrels was attributable to newly-affiliated companies (primarily Enstar Corporation and Universal Resources Corporation). The balance was accounted for by increased production of companies with prior foreign affiliations.

The production of natural gas in the United States rose in 1984, after falling noticeably between 1982 and 1983. Foreign-affiliated companies' natural gas production rose slightly faster, increasing the foreign-affiliates' share of U.S. natural gas production from 5.8 percent to 6.0 percent in 1984. New entrants to the ranks of foreign-affiliated companies in 1984 accounted for about one-quarter of the total increase in foreign-affiliated companies natural gas production.

Refining and Gasoline Marketing

Between 1980 and 1981, foreign-affiliated companies' share of U.S. crude distillation capacity increased from 11.1 percent to 14.5 percent (Table 10). Since then, while overall capacity continued to fall, foreign affiliates shared in the reduction in U.S. refining capacity with the result that their share was little changed in 1984, at 14.6 percent. The stability in foreign affiliates' share was maintained despite the sale in 1984 by Husky Oil of its two U.S. refineries.

Table 9. Net Production of Petroleum and Dry Natural Gas in the United States by Foreign-Affiliated U.S. Companies, 1980-1984

Company	Crude Oil and Natural Gas Liquids ^a					Dry Natural Gas ^a				
	1980	1981	1982	1983	1984	1980	1981	1982	1983	1984
	(thousand barrels per day)					(billion cubic feet)				
Standard Oil of Ohio.....	715.8	717.3	693.7	613.2	633.9	^b 29.1	^b 30.7	^b 33.1	^b 34.9	^b 32.1
Shell Oil Co.....	511.0	514.0	520.5	523.3	532.8	651.2	664.3	607.0	539.0	590.0
Du Pont.....	NF	139.8	137.0	117.8	120.2	NF	250.9	262.0	213.0	248.0
American Petrofina.....	18.2	18.3	17.7	18.2	18.8	18.9	21.1	20.4	19.4	22.4
Husky Oil.....	14.6	14.8	15.0	15.6	0.0	9.8	9.7	9.0	9.1	0.0
W.R. Grace Co.....	11.5	11.6	11.2	10.0	8.5	37.2	36.9	34.7	29.4	30.8
Adobe Oil and Gas Corp.....	NF	4.9	4.5	4.4	4.5	NF	11.2	10.5	9.3	10.3
Total Petroleum (NA) Ltd.....	4.7	4.5	4.6	3.6	4.4	10.9	10.7	10.0	8.9	8.3
Enstar Corporation.....	NF	NF	NF	NF	4.4	NF	NF	NF	NF	15.0
Newmont Mining.....	NF	3.8	4.7	4.0	4.0	NF	14.8	15.4	10.7	11.3
Hiram Walker Resources.....	0.6	4.5	5.3	4.5	3.9	5.0	13.0	25.0	18.0	14.0
Bow Valley Industries.....	2.2	2.6	2.0	2.5	2.6	4.7	3.9	3.8	3.3	3.6
Universal Resources Corp.....	NF	NF	NF	NF	2.3	NF	NF	NF	NF	7.7
Gulf Resources & Chemicals...	NF	NF	0.9	1.4	1.6	NF	NF	5.8	10.2	10.3
Inspiration Resources Corp...	NF	NF	NF	1.2	1.6	NF	NF	NF	1.7	2.8
Hamilton Oil Corp.....	NF	NF	1.3	1.1	0.9	NF	NF	5.6	4.4	5.8
Other Companies.....	1.2	1.7	2.3	R4.1	5.5	8.9	12.8	12.6	13.1	17.0
Total Foreign Affiliated.....	1,279.8	1,437.8	1,420.7	1,324.9	1,349.9	775.7	1,080.0	1,054.9	924.4	1,029.4
Total for United States ^c ...	10,170.0	10,181.0	10,199.0	10,247.0	10,509.0	19,403.0	19,181.0	17,758.0	16,033.0	17,231.0
Percent Foreign Affiliated...	12.6	14.1	13.9	12.9	12.8	4.0	5.6	5.9	5.8	6.0

^aUnless otherwise noted, company production is net working interest production.

^bReported natural gas sales.

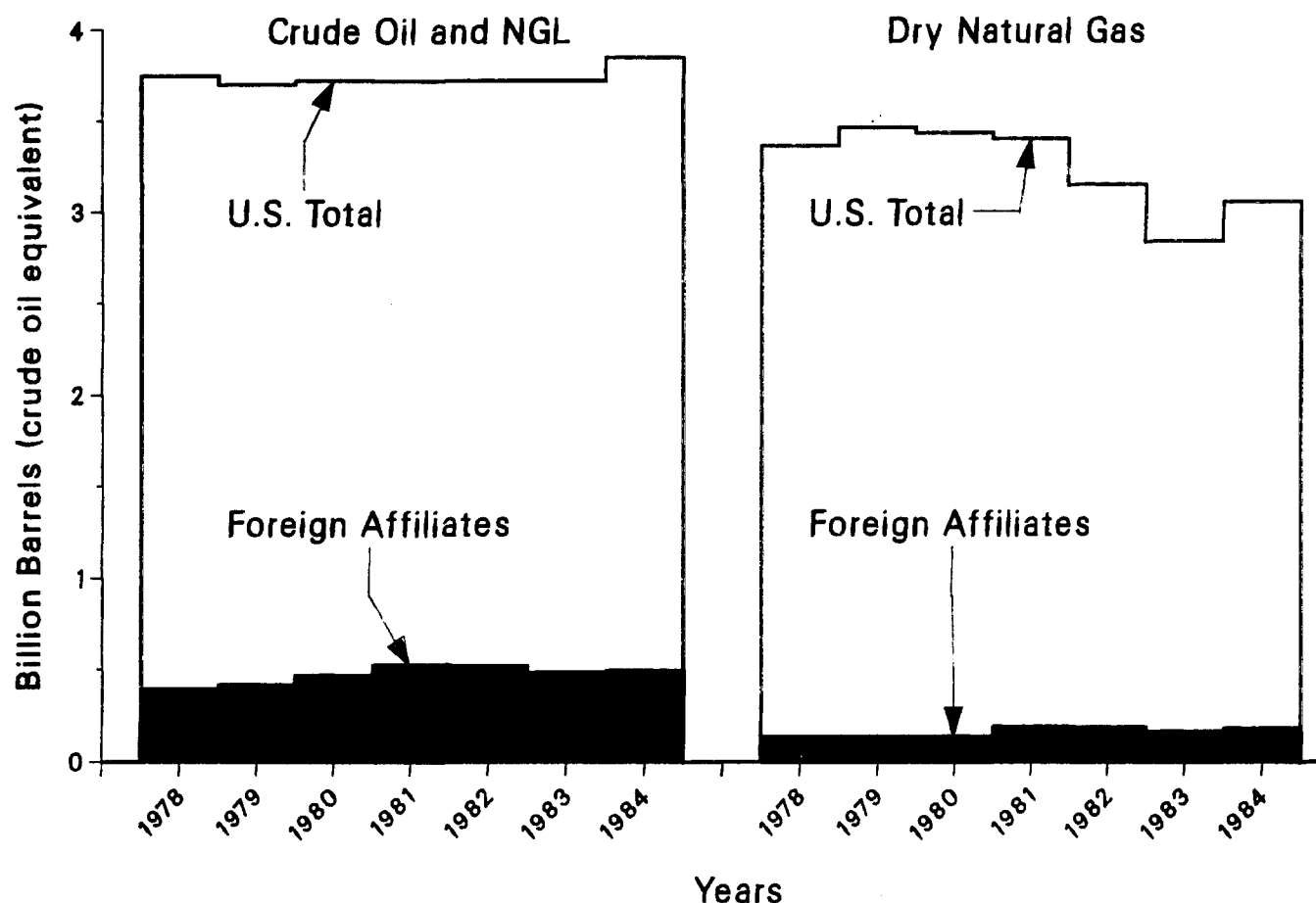
^cCrude oil and NGL production is the sum of field production of crude oil and natural gas plant liquids. Natural gas production is total dry gas production.

NF = Not foreign-affiliated in years shown.

Note: Total may not equal sum of components due to independent rounding.

Sources: Company data - Form 10K reports to the Securities and Exchange Commission and Annual Reports to Shareholders. Totals for the United States - Energy Information Administration, Monthly Energy Review, DOE/EIA-0035(85/07) (Washington, D.C., October 1985).

Figure 4. Domestic Oil and Dry Natural Gas Production for Foreign-Affiliated U.S. Companies, 1978-1984



Source: o Data for Foreign Affiliates - Form 10K reports to the Securities and Exchange Commission and Annual Reports to Shareholders. o Totals for the United States - Energy Information Administration, Monthly Energy Review July 1985, DOE/EIA-0035(85/07) (Washington, D.C., October 1985).

Table 10. U.S. Refinery Operations of Foreign-Affiliated U.S. Companies, 1979-1984

Company	Number of Refineries ^a					Total Crude Capacity ^a						
	1979	1980	1981	1982	1983	1984	1979	1980	1981	1982	1983	1984
	(thousand barrels per day)											
Shell Oil Co.....	8	8	8	7	7	7	1,136	1,136	1,162	1,092	1,005	1,115
Standard Oil of Ohio.....	3	3	3	3	3	3	452	452	452	456	456	456
Du Pont.....	NF	NF	8	7	7	7	NF	NF	475	421	421	430
American Petrofina.....	2	2	2	2	2	2	150	150	150	150	150	150
Total Petroleum (NA) Ltd...	2	3	3	3	3	3	83	147	145	145	145	145
Husky Oil Co.....	3	3	3	2	2	(^b)	60	60	65	54	54	(^b)
ATC Petroleum.....	2	2	2	(^c)	(^c)	(^c)	25	25	25	(^c)	(^c)	(^c)
American Ultramar, Ltd.....	NF	NF	1	1	2	2	NF	NF	17	17	34	34
Fletcher Oil & Refining....	1	1	1	1	1	1	30	30	25	30	30	30
Asamera Oil Co. (U.S.).....	1	1	1	1	1	1	22	40	39	26	26	26
MacMillan Ring-Free Oil Co.	NF	NF	2	2	2	2	NF	NF	17	17	17	17
Golden Eagle Oil Co., Inc..	1	1	1	1	(^d)	(^d)	16	16	16	16	(^d)	(^d)
Adobe Oil and Gas Co.....	NF	NF	1	(^c)	(^c)	(^c)	NF	NF	8	(^c)	(^c)	(^c)
ICG-Vista Petroleums	2	2	(^e)	(^e)	(^e)	(^e)	10	10	(^e)	(^e)	(^e)	(^e)
Total Foreign Affiliated...	25	26	36	30	30	28	1,984	2,066	2,595	2,423	2,337	2,293
Total United States.....	319	324	301	258	247	223	17,988	18,621	17,890	16,859	16,137	15,659
Percent Foreign Affiliated	7.8	8.0	12.0	11.6	12.1	12.6	11.0	11.1	14.5	14.4	14.5	14.6

^aRefineries operable as of December 31st in each year.^bSold to RMT Properties, Inc. in 1984.^cShutdown.^dIncluded with American Ultramar, Ltd., after 1982.^eICG-Vista's refining capacity was sold to an American company (Flying J. Inc.) at the end of 1980.

NF = Not foreign affiliated during this period.

Source: U.S. Department of Energy, Energy Information Administration, Petroleum Refineries in the United States and U.S. Territories, DOE/EIA-0111(80) (Washington, D.C., September 17, 1980); U.S. Department of Energy, Energy Information Administration, Petroleum Refineries in the United States and U.S. Territories, DOE/EIA-0111(81) (Washington, D.C., May 22, 1981); Energy Information Administration, Petroleum Supply Annual 1981, Volume 1, DOE/EIA-0340(81)/1 (Washington, D.C., July 1982); Energy Information Administration, Petroleum Supply Annual 1982, Volume 1, DOE/EIA-0340(82)/1 (Washington, D.C., June 1983); Energy Information Administration, Petroleum Supply Annual 1983, Volume 1, DOE/EIA-0340(83)/1 (Washington, D.C., June 1984); Energy Information Administration, Petroleum Supply Annual 1984, Volume 1, DOE/EIA-0340(84)/1 (Washington, D.C., June 1985).

With respect to U.S. affiliates abroad, Table 11 depicts the extent of involvement in foreign petroleum refining by major U.S. energy companies. Less than 16 percent of total non-U.S. free-world refining capacity was owned by FRS companies in 1983. By contrast, in 1979, over 20 percent of total foreign petroleum product output was attributable to FRS companies' foreign operations.⁶ Since 1979 the FRS companies have been reducing their foreign refining commitments, having divested themselves of 1,660 thousand barrels per day of crude distillation capacity abroad by 1983, a 20-percent decline.

With respect to foreign affiliates' role in gasoline supply, Table 12 indicates that these companies' share declined somewhat in 1984, from 15.4 percent to 14.4 percent. This table also indicates that foreign-affiliated companies' share of branded service stations remained stable at slightly over 19 percent between 1983 and 1984.⁸

Coal Production

Between 1980 and 1981, foreign affiliates' share of U.S. bituminous coal and lignite production jumped from 3.9 percent to 12.9 percent (Figure 5). Of this increase, 87 percent was attributable to acquisitions of equity ownership by foreign investors and 13 percent stemmed from production increases of U.S. companies with prior foreign affiliation. In 1982, foreign affiliates' share again rose, with 54 percent of the increase associated with new equity acquisition and the remainder coming from production increases of prior affiliated companies.

In 1983, there were no new equity acquisitions of significant U.S. coal producers by foreign interests. Foreign-affiliated coal producers experienced a 7-percent decline in production similar to the industry as a whole in 1983 (Table 13). In 1984, U.S. demand for coal increased due to both increased economic activity and inventory build-up in anticipation of a possible mine workers' strike in the fall. U.S. production of bituminous coal and lignite increased 14.6 percent in 1984 over the prior-year total (Table 13). Coal production of companies with foreign affiliations prior to 1984 increased 12.5 percent. However, the acquisition of the Utah International subsidiary of General Electric by the Broken Hill Proprietary Company, Ltd., an Australian concern, added 15 million tons of production to foreign-affiliates' total coal production in 1984. As a

⁶The foreign operations of FRS companies exclude those associated with non-U.S. based multinationals. For example, Shell Oil Co., Sohio, and American Petrofina are U.S. affiliates of foreign multinationals which report to the FRS. Only the operations of these U.S. affiliates are included in the FRS data.

⁷Energy Information Administration, Performance Profiles of Major Energy Producers 1983, Volume 2, DOE/EIA-0206(83)/2(Washington, D.C., January 1985), p. 56.

⁸Based on information reported in National Petroleum News (Fact-Book Issue) 1985. The Energy Information Administration ceased collection of service station count data with the 1981 reporting year.

⁹Based on data in Table 12 in Energy Information Administration, Profiles of Foreign Direct Investment in U.S. Energy 1983, DOE/EIA-0466(Washington, D.C., February 1985) and in U.S. Department of Energy, Secretary of Energy, Annual Report to Congress, DOE/S-0010(84)(Washington, D.C., September 1984), p. 210.

Table 11. Foreign Refinery Output and Capacity Statistics^a for FRS Companies and Foreign Industry, 1982 and 1983

Refinery Statistics	FRS Companies (thousand barrels per day)	Foreign Industry	FRS Percent of Industry
1982			
Refinery Output ^b	5,473	30,455	18.0
Percent Gasoline.....	24.3	19.3	22.6
Percent Distillate.....	33.9	30.5	20.0
Percent Other.....	41.8	50.2	15.0
Refinery Capacity.....	7,254	42,715	17.0
1983			
Refinery Output ^b	5,000	30,474	16.4
Percent Gasoline.....	26.3	19.9	21.6
Percent Distillate.....	35.4	30.6	19.0
Percent Other.....	38.3	49.5	12.7
Refinery Capacity.....	6,457	41,427	15.6

^aForeign FRS and foreign industry data exclude operations in Puerto Rico and the U.S. Virgin Islands, as well as China and the Soviet Bloc.

^bTotal output of refined products, for FRS companies, is total output at own refineries and refineries of others for own account.

^cYear-end capacity in thousand barrels per calendar day.

Note: Total may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Performance Profiles of Major Energy Producers 1983, Volume 1, DOE/EIA-0206(83)/1(Washington, D.C., February 1985); Energy Information Administration, International Energy Annual 1983, DOE/EIA-0219(83) (Washington, D.C., November 1984); and Energy Information Administration, International Energy Annual 1984, DOE/EIA-0219(84)(Washington, D.C., October 1985).

Table 12. Branded Retail Outlets and Total Gasoline Supplied by Foreign-Affiliated U.S. Companies, 1980-1984

Company	1980	1981	1982	1983	1984
	Total Branded Retail Outlets				
Shell Oil Co.....	15,403	13,700	12,282	12,147	11,010
Du Pont.....	NF	4,885	4,702	5,091	5,430
American Petrofina.....	3,082	3,211	4,201	4,037	4,385
Standard Oil of Ohio.....	4,071	3,552	2,200	2,100	2,100
Total Petroleum (NA) Ltd.....	1,926	1,893	1,797	1,863	1,847
Husky Oil Co.....	494	562	562	698	720
Asamera Oil Co. (U.S.).....	114	110	93	95	60
Total for Above.....	25,090	27,913	25,837	26,031	25,492
U.S. Total ^c					
EIA.....	145,090	142,519	-	-	-
National Petroleum News.....	-	151,250	144,690	136,570	132,080
Percent of U.S. Total for Above					
EIA.....	17.3	19.6	-	-	-
National Petroleum News.....	-	18.5	17.9	19.1	19.3
	Total Gasoline Supplied ^d				
	(thousand barrels per day)				
Total Foreign Affiliated ^e	926	1,114	1,092	1,022	967
U.S. Total ^c	6,579	6,588	6,539	6,622	6,693
Percent Foreign Affiliated.....	14.1	16.9	16.7	15.4	14.4

^aHusky Oil has put up for sale its U.S. retail outlets.

^bAsamera Oil reported that its U.S. retail outlets were sold in 1984.

^cU.S. total for gasoline volumes represents total U.S. gasoline supply, as reported in the Energy Information Administration, Monthly Energy Review (October 1985). U.S. total for service stations represents the number of branded retail stations in operation at the end of the year from data presented in the Energy Information Administration, Petroleum Market Shares Report, July 1981. These latter data exclude stations deriving less than 50 percent of revenues from gasoline sales. Total U.S. branded stations for 1981 is the July total. The Energy Information Administration stopped publishing outlet data in 1981. Station counts are taken from National Petroleum News (Factbook Issue) beginning with 1982.

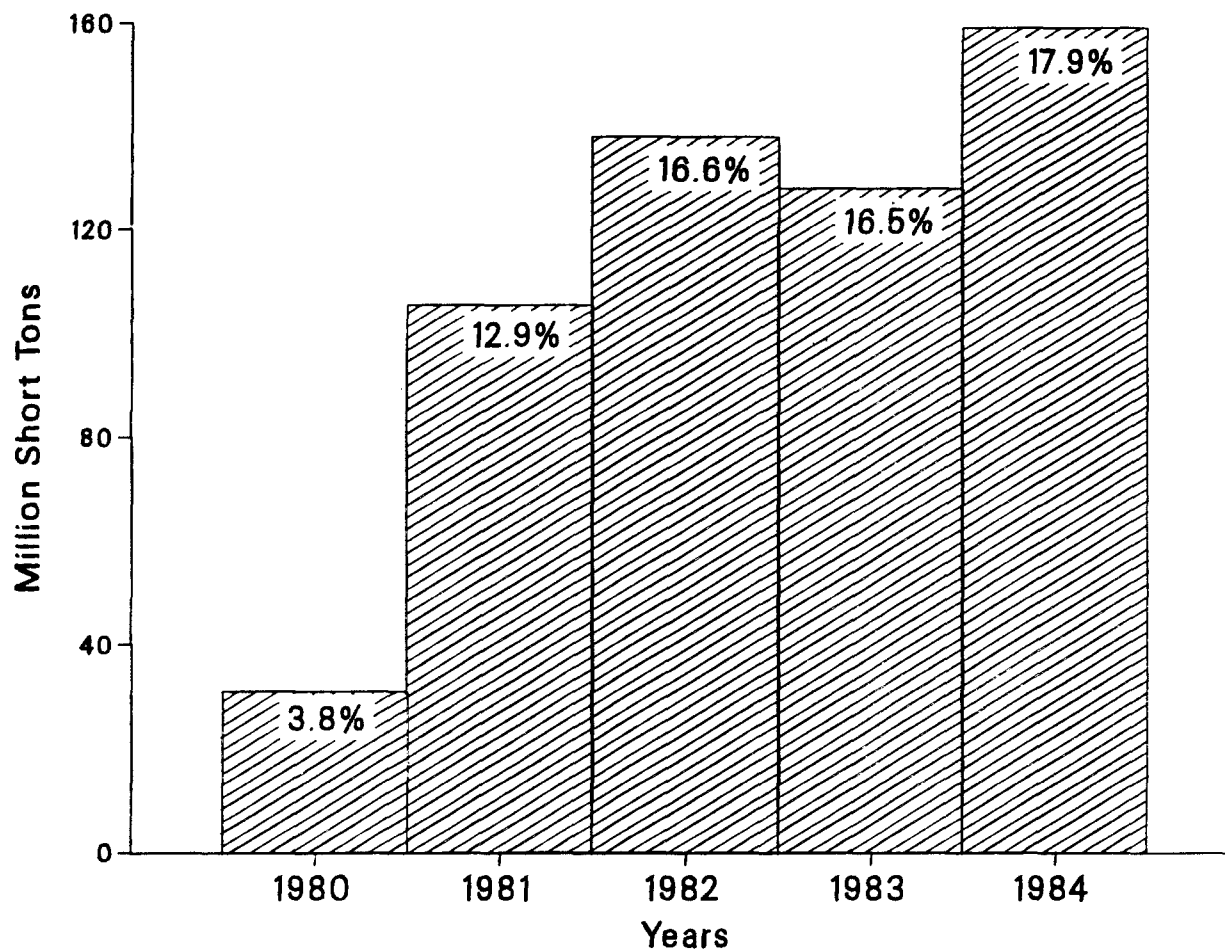
^dGasoline Supplied refers to average daily gasoline shipments.

^eDisaggregated company numbers are considered proprietary by the Energy Information Administration.

NF = Not foreign affiliated during this period.

Sources: National Petroleum News (Factbook Issue), 1980-1985, for company station counts except for Du Pont, Standard Oil of Ohio, and Husky Oil Company for which data were taken from annual reports to shareholders. Energy Information Administration, Form EIA-782c for company gasoline volumes. Energy Information Administration, Monthly Energy Review, DOE/EIA-0035(85/07) (Washington, D.C., October 1985) for U.S. total gasoline supplied.

Figure 5. Production and Share of U.S. Total Bituminous Coal and Lignite of Foreign-Affiliated U.S. Companies, 1980-1984



Source: o 1980 - U.S. Department of Energy, Secretary of Energy, Annual Report to Congress, Appendix A, DOE/S-0010(84) (Washington, D.C., September 1984). o 1981 - Energy Information Administration, Profiles of Foreign Direct Investment in U.S. Energy, 1983, DOE/EIA-0466 (Washington, D.C., February 1985). o 1982-1984 - Keystone Coal Industry Manual, 1985. o U.S. Totals - Energy Information Administration, Quarterly Coal Report, DOE/EIA-0121(85/2Q) (Washington, D.C., October 1985).

Table 13. Bituminous Coal and Lignite Production and Source of Ownership of Foreign-Affiliated Coal Companies in the United States, 1982-1984

Controlling Company	Foreign-Ownership Interest	Coal Production ^a		
		1982	1983	1984
		(thousand short tons)		
Consolidation Coal Co. (Du Pont).....	JES Holding, Inc.	49,566	43,265	47,251
A.T. Massey Coal Co.....	Royal Dutch Shell ^b	21,200	18,218	23,541
Standard Oil of Ohio.....	British Petroleum	13,489	10,506	15,666
Utah International, Inc.....	Broken Hill Proprietary Co.	NF	NF	15,189
Westmoreland Coal Co.....	Veba Kohle International	8,310	12,708	12,511
Shell Oil Co.....	Royal Dutch Shell	5,842	7,010	8,085
W.R. Grace and Co.....	Flick Group	5,118	5,098	5,436
Pyro Mining Co.....	Costain Group ^c	3,208	3,300	4,200
Enoxy Coal, Inc.....	Ente Nazionale Idrocarburi ^d	6,573	3,935	3,771
Gulf Resources and Chemical.....	HCI Holdings, Ltd./Private Investor	4,642	3,352	3,444
Ashland Coal Co.....	Saarbergwerke AG/Carboex	3,393	2,409	2,903
Bow Valley Coal Resources	Bow Valley Industries, Ltd.	4,545	4,255	2,745
Steel Company of Canada.....	Steel Company of Canada	1,989	2,640	2,672
AMCA Resources.....	(unidentified) Netherlands Antilles Group	1,725	1,926	2,519
Adobe Oil and Gas Corp.....	Francana Oil and Gas, Ltd.	2,243	1,778	2,178
Cannelton Industries, Inc.....	Algoma Steel, Ltd.	1,839	2,236	1,862
Aquitaine Company of Canada.....	Aquitaine Company of Canada	1,499	1,342	1,564
Hudson Bay Mining and Smelting Co., Ltd.....	Hudson Bay Mining and Smelting Co., Ltd.	917	587	1,350
Cannelton Industries, Ltd.....	Cannelton Industries, Ltd.	567	649	769
Coal Corp. of America.....	Campbell Resources	419	520	646
Scotts Branch Co.....	Holland Carbon Fuels	718	686	574
Roag Rohstoff und Verarbeitings.....	Roag Rohstoff und Verarbeitings	79	1,411	215
Husky Oil Co.....	Husky Oil, Ltd.	216	215	205
Total Foreign Affiliated ^e	--	138,097	128,046	159,296
Total United States.....	--	833,524	778,002	891,759
Percent Foreign Affiliated.....	--	16.6	16.5	17.9

^a Coal production refers to lignite and bituminous coal production only.

^b Joint venture with Fluor Corporation.

^c Joint Venture with Pyro Energy Corporation.

^d Joint venture with Occidental Petroleum Corp.

^e Coal production was not reported in the 1985 Keystone Coal Industry Manual for the following foreign-affiliated producer: Avery Coal Company. In 1983, coal production of this company totalled 1,977 tons.

NF = Not foreign affiliated during this period.

Sources: Coal ownership - Energy Information Administration, U.S. Department of Energy, Directory of Coal Production Ownership 1979; Moody's Industrial Manual, 1982-85; U.S. Department of Commerce, International Trade Administration, Foreign Direct Investment Activity, in the United States, monthly reports. Coal company production data - Keystone Coal Industry Manual, "U.S. Coal Production by Company," 1982-1984 except Adobe Oil and Gas Corporation for which production was reported in their annual report to shareholders. U.S. total for coal production - Energy Information Administration, Quarterly Coal Report, DOE/EIA-0121(85/2Q) (Washington, D.C., October 1985).

consequence, the share of U.S. coal production attributable to foreign-affiliated companies increased to 17.9 percent in 1984.

Uranium Exploration

A continued diminished outlook for the future of the domestic uranium exploration and production industry in the United States is reflected in the 28-percent decline in U.S. uranium exploration expenditures from 1983 to 1984. This decrease follows the annual declines of 50 percent, 49 percent, and 46 percent in 1983, 1982, and 1981, respectively (Table 14). The \$26.5 million spent on domestic uranium exploration in 1984 was the lowest total recorded since at least 1974, and was the fifth consecutive annual decline in expenditures. In 1984, foreign affiliates' spending for uranium exploration and development ran counter to the industry trend, increasing from \$4.8 million in the prior year to \$6.6 million. As a consequence, the foreign affiliates' share of total industry expenditures rose to 25 percent, far exceeding their share in any of the prior nine years.

Table 14. Foreign Participation in U.S. Uranium Exploration, 1975-1984

Year	Foreign-Funded Exploration and Development Expenditures	Total U.S. Exploration and Development Expenditures	Foreign Percent of U.S. Total	Number of Foreign-Affiliated Companies
	(million dollars)			
1975	13.2	122.0	10.8	15
1976	13.2	170.7	7.7	15
1977	21.7	258.1	8.4	17
1978	39.3	314.3	12.5	31
1979	34.1	315.9	10.8	28
1980	37.6	267.0	14.1	28
1981	24.6	144.8	17.0	25
1982	14.6	73.6	19.8	14
1983	4.8	36.9	13.0	9
1984	6.6	26.5	24.9	9

Source: Energy Information Administration, Survey of U.S. Uranium Exploration Activity 1983, DOE/EIA-0402(83) (Washington, D.C., July 1984), and Energy Information Administration, Uranium Industry Annual 1984, DOE/EIA-0478(84) (Washington, D.C., October 1985).

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1984 Through December 1984

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
ROYAL DUTCH SHELL GROUP (Netherlands)	Oil and Gas Exploration	Shell Oil Co. (TX)	Oil and Gas Exploration	Stock Acquisition	4,530.0	8-84
BRITISH PETROLEUM PLC (United Kingdom)	Oil and Gas Exploration and Production	3 Alaskan Projects SOHIO	Oil and Gas Exploration and Production	Property Acquisition	1,062.0	12-84
SCHLUMBERGER LTD. (Canada)	Construction and Drilling Equipment	Dowell (Dow Chemical U.S.A.)	Oil Exploration Support Pumping Service	Asset Acquisition	440.0	7-84
PETROFINA S.A. (Belgium)	Oil and Gas Exploration	American Petrofina, Inc. (TX)	Integrated Petroleum	Stock Acquisition 73.5 to 80.2%	400.0	10-84
ROYAL DUTCH SHELL GROUP (Netherlands)	Oil and Gas Exploration and Production	Shell Oil Co.'s Recovery Project (MS)	Oil Recovery Enhancements	Property Acquisition	173.5	9-84
ULTRAMAR PLC (United Kingdom) Unimar	Oil and Gas Exploration and Production	Enstar Corp. (Houston, TX)	Oil and Gas Exploration	Stock Acquisition	143.0	9-84
ROYAL DUTCH SHELL GROUP (Netherlands)	Oil and Gas Exploration and Production	Shell Oil Company (NJ)	New Oil Wells in New Jersey	Property Acquisition	103.5	11-84
TRANSCANADA PIPELINES LTD. (Canada)	Oil and Gas Production	Wessely Energy Corp. (Rockefeller Group, Inc.) (TX)	Oil and Gas Exploration and Production	Equity Acquisition	100.0	8-84

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Source: See list of sources at end of Appendix.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1984 Through December 1984(continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
CANADIAN OCCIDENTAL PETROLEUM, LTD. (Canada)	Oil and Gas Production	Cities Offshore Production Co. (Los Angeles, CA)	Oil and Gas Production	Equity Acquisition	96.8	3-84
AB VOLVO (SWEDEN)	Automotive and Energy Operations	Hamilton Oil Corp. (Dallas, TX)	Oil and Gas and Production	Stock Acquisition	92.0	10-84
ANGLO-AMERICAN CORP. OF SOUTH AFRICA LTD. (South Africa) Inspiration Resources Corp.	Oil and Gas and Minerals Concern	Madison Resources, Inc. (NY)	Oil and Gas Exploration	Stock Acquisition	89.0	11-84
ROYAL DUTCH SHELL GROUP (Netherlands)	Oil and Gas Exploration and Production	Petro-Lewis Corp.'s Properties (AK)	Prudhoe Bay/Northeast Prentice Alaskan Oil Properties; Cognac Field/KCL-2 McManues	Property Acquisition	83.4	5-84
SOCIETE QUEBECOISE D'INITIATIVES PETROLIERES (Canada)	Oil and Gas Exploration	Sundance Oil. Co. (Denver, CO)	Oil and Gas Exploration and Development	Stock Acquisition	79.0	12-84
PREUSSAG AG (West Germany)	Oil Holdings and Investments	Anschutz Corp.'s Oil Properties (IA)	Oil and Gas Exploration and Development	Property Acquisition	70.0	9-84
ROYAL DUTCH SHELL GROUP (Netherlands)	Oil and Gas Exploration and Production	Shell Oil Co. Oil Refinery Wood River (IL)	Oil and Gas Exploration and Production	Plant Expansion	69.4	1-84
AB VOLVO (Sweden)	Automotive and Energy Operations	Hamilton Brothers Petroleum Corp. (Denver, CO)	Oil and Gas Production	Stock Acquisition	64.3	1-84

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1984 Through December 1984 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
BRITISH PETROLEUM PLC (United Kingdom)	Oil and Gas Exploration and Production	Oil Leases Gulf of Mexico (TX)	--	Lease Acquisition	61.9	12-84
BRITISH PETROLEUM PLC (United Kingdom)	Oil and Gas Exploration and Production	Eason Oil Co. Gas Processing Division (OK)	Oil and Gas Production and Refining	Plant Acquisition	60.0	12-84
ROYAL DUTCH SHELL GROUP (Netherlands)	Oil and Gas Exploration and Production	W.R. Grace's Oil Reserves Arroyo Grande (CA)	Oil Production and Oil Leases	Property Acquisition	47.3	12-84
CANADIAN OCCIDENTAL PETROLEUM, LTD. (Canada)	Oil and Gas Production	Cities Offshore Production Co. (Dover, DE)	Oil and Gas Production	Equity Acquisition	35.7	1-84
CRUSADER OIL NL (Australia)	Oil and Gas Exploration	Bradley Producing Corp. (NY)	Minerals, Oil and Gas Production	Equity Acquisition	21.2	1-84
CHIEFTAIN DEVELOPMENT CO., LTD. (Canada)	Oil and Gas Exploration	Oil Leases (17) (TX)	--	Lease Acquisition	17.0	1-84
SOCIETE QUEBECOISE D'INITIATIVES PETROLIERES (Canada)	Oil and Gas Investments	Sundance Oil Co. (Triton Energy Corp. Share) (CO)	Oil and Gas Exploration and Development	Stock Acquisition	16.0	11-84
BRITISH PETROLEUM PLC (United Kingdom)	Oil and Gas Exploration and Production	Sohio Construction Co. (San Joaquin Cal.) (CA)	Oil Gas Modules Manufacturing	New Plant Construction	13.3	1-84
GLOBAL NATURAL RESOURCES PLC (United Kingdom) Nareco Corp. (TX)	Oil and Gas Exploration	Oil Wells (35) (TX) Crane/Pecos Co.	Oil Production and Reserves	Property Acquisition	12.7	8-84

--: Not applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1984 Through December 1984 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
IBC CALAND NV (Netherlands)	Oil and Gas Exploration	Geosystems Corp. (CO)	Oil and Gas and Production	Stock Acquisition	11.3	12-84
SOCIETE QUEBECOISE D'INITIATIVES PETROLIERES (Canada)	Petroleum Investments	Sundance Oil Co. (CO)	Oil and Gas Exploration	Stock Acquisition	10.5	8-84
JOHN WOOD GROUP PLC (United Kingdom)	Offshore Supplies and Services	Geosystems Pioneer (OK)	Oil Field Services	Stock Acquisition	10.0	11-84
BURMAH OIL PLC (United Kingdom)	Refining and Distribution of Petroleum Products	Burmah Castrol (LA)	Lubricating Oils Oil and Petroleum Products	Plant Expansion	9.0	1-84
BRITISH PETROLEUM (United Kingdom)	Oil and Gas Exploration and Production	Oil Leases (CA)	--	Lease Acquisition	6.0	12-84
H.L.J.M. GIESKES (Netherlands)	Holdings and Investments	Excel Energy Corp. (CO)	Oil and Gas Drilling Exploration and Development	Stock Acquisition	5.5	5-84
LEHNDOFF/LGB MINERALS INC. (International Investment Group) (West Germany)	Oil and Gas Investments	Chapman Energy Inc. (Dallas, TX) 80% BAH Energy Corp. (San Antonio, TX) and Cristle Energy (Austin, TX) 20%	Gas Pipeline Joint Venture Interest	Joint Venture	5.0	12-84
GOVERNMENT OF AUSTRIA (Austria) Alpine Trading USA Corp.	Holding and Investments	Transierra Exploration Corp. (CA)	Oil and Gas Exploration	Stock Acquisition	5.0	3-84

--: Not applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1984 Through December 1984 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
ANGLO-AMERICAN CORP. OF SOUTH AFRICA LTD. Harry F. Oppenheimer Oil and Gas (South Africa) Inspiration Resources Corporation	Oil and Gas Reserves	Universal Resources, Corp. (Dallas, TX)	Energy Exploration and Development	Stock Acquisition	5.0	8-84
HAMILTON OIL GREAT BRITAIN PLC (United Kingdom)	Oil and Gas Exploration	Hamilton Bros. Oil Corp. (Denver, CO)	Oil and Gas Exploration	Equity Acquisition	^a 4.6	3-84
SEACRAM CO. LTD. (Canada)	Holding and Investments	Du Pont (DE) (Conoco)	Chemicals, Oil and Gas Exploration and Development	Stock Acquisition	4.2	8-84
INVERNESS PETROLEUM LTD. (Canada)	Oil and Gas Exploration and Development	States Exploration Ltd. (WY)	Oil and Gas Exploration and Development	Stock Acquisition	4.2	4-84
TRAFALGAR HOUSE PLC (United Kingdom)	Holdings and Investments	Odyssey Energy Inc. (TX)	Oil and Gas Exploration and Development	Property Acquisition	4.0	9-84
KRATOS MINERALS NL (Australia)	Holdings and Investments	Earth Energy Inc. (Harken Oil and Gas Inc.) (TX)	Oil and Gas Exploration and Development	Equity Acquisition	4.0	3-84
ENTRAD, LTD (Australia)	Oil and Gas Exploration	Norris Oil Co. (CA)	Oil and Gas Exploration and Development	Stock Acquisition	3.8	11-84

^aRepresents costs and expenses related to the consolidation of Hamilton Brothers Petroleum Company and Hamilton Oil Great Britain PLC into Hamilton Oil Corporation.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1984 Through December 1984 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
INVESTMENT GROUP INCLUDING SOUTHWOLD N.V. (Netherlands)	Investments	Enterra Corp. (Radnor, PA)	Oil and Gas Energy Fire Protection Special Services	Stock Acquisition	3.2	3-84
DINAVEST, LTD. (United Kingdom)	Holdings and Investments	Southland Energy Corp. (OK)	Oil and Gas Extraction	Stock Acquisition	3.0	5-84
ENTRAD, LTD. (Australia)	Oil and Gas Exploration	Norris Oil Corp. (CA)	Oil and Gas Exploration	Stock Acquisition	2.2	6-84
ABEC HYDROCARBONS (Entrad, Ltd's. Affiliate) (Australia)	Petroleum Investments	Norris Oil Corp. (CA)	Oil and Gas Exploration and Development	Stock Acquisition	1.7	9-84
ROYAL DUTCH SHELL GROUP (Netherlands)	Oil and Gas Exploration and Development	National Petroleum Reserve Oil/Gas Leases #34, 37 (AK)	--	Lease Acquisition	1.0	9-84
INVERNESS PETROLEUM LTD. (Canada)	Oil and Gas Exploration and Development	States Exploration Ltd. (CO)	Oil and Gas Exploration and Development	Stock Acquisition	1.0	4-84

--: Not applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1984 Through December 1984 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
KLEINWORT BENSON LTD. (United Kingdom)	Holdings and Investments	Jefferson-Williams Energy Corp. (Dallas, TX)	Oil and Gas Production	Stock Acquisition	0.5	1-84
CALAND HOLDINGS NV (Netherlands)	Holdings and Investments	American Well Servicing Corp. (TX)	Oil and Gas Production	Stock Acquisition	0.4	3-84
SHADOWFAX RESOURCES LTD. (Canada)	Oil and Gas Exploration	Wetzel Resources Corp. (WV)	Oil and Gas Production	Stock Acquisition	0.4	1-84
MALCOLM DICKASON AND RONALD RYAN (Australia)	Investments	Wentex International Inc. (CA)	Oil and Gas Exploration	Stock Acquisition	0.3	10-84
SUN LIFE ASSURANCE SOCIETY PLC (United Kingdom)	Holdings and Investments	Jefferson-Williams Energy Corp. (Dallas, TX)	Oil and Gas Production	Stock Acquisition	0.2	1-84
ROYAL DUTCH SHELL GROUP (Netherlands)	Oil and Gas Exploration and Development	National Petroleum Reserve Oil/Gas Lease #1 (AK)	--	Lease Acquisition	0.2	9-84
ROYAL DUTCH SHELL GROUP (Netherlands)	Oil and Gas Exploration and Development	National Petroleum Reserve Oil/Gas Lease #2 (AK)	--	Lease Acquisition	0.2	9-84
ROYAL DUTCH SHELL GROUP (Netherlands)	Oil and Gas Exploration and Development	National Petroleum Reserve Oil/Gas Lease #6 (AK)	--	Lease Acquisition	0.2	9-84
NIPPON KOLAN KK (Japan)	Steel Products	NK Project Management Service Co. (TX)	Plant Engineering for Oil and Gas Projects	Plant Acquisition	0.1	8-84

--: Not applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1984 Through December 1984 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
PHYLLIS QUASHA (Australia)	Oil Investments	Harken Oil and Gas (TX)	Oil and Gas Exploration and Development	Stock Acquisition	0.1	12-84
PROGRAMMED NEURO CYBERNETICS PLC (United Kingdom)	NA	Universal Fuels Co. (Denver, CO)	Oil and Gas Production	Merger	NA	5-84
BRITISH PETROLEUM PLC (United Kingdom)	Oil and Gas Exploration	Advanced Fuels Technologies Inc. (NJ)	Oil and Gas Production and Refining	Stock Acquisition	NA	12-84
CANADIAN MARINE DRILLING, LTD. (Canada) (Dome Petroleum Ltd.)	Oil and Gas Exploration	Reading & Bates Drilling Co. (Tulsa, OK) (Reading & Bates Corp.)	Oil and Gas Production	Joint Venture	NA	2-84
JOEX, LTD. (Canada)	Mining Exploration and Development	Belvedere Fund - 1976 and Belvedere Fund No. 3-1977	--	Acquisition	NA	3-84
ENSIGN OIL AND GAS INC. (United Kingdom) (British Merchant Navy Officer's Pension Fund)	Oil and Gas Exploration	Liberty Oil & Gas Corp. (New Roads, LA)	Oil and Gas Production	Joint Venture	NA	3-84

NA = Not available.

--: Not applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1984 Through December 1984 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
BRONFMAN FAMILY (Canada)	Holding and Investments	Oil Wells Conoco, Inc. (CA)	New Well	Asset Acquisition	NA	11-84
SOUTHERN PACIFIC PETROLEUM NL (Australia)	Oil Exploration, Development and Refining	Breckinridge Minerals, Inc. (KY)	Oil Shale Processing Plant	New Office	NA	2-84
FRIEDRICH K. FLICK (West Germany)	Holdings and Investments	Grace Petroleum Corp. Wells (2) (OK)	Oil and Gas Exploration and Development	Asset Acquisition	NA	5-84
HAMILTON OIL GREAT BRITAIN PLC (United Kingdom)	Oil and Gas Exploration and Development	Hamilton Oil Corp. (CO)	Oil and Gas Exploration and Development	Stock Swap	NA	4-84
STOCKTON TRADING LTD. (The Bahamas)	Holdings and Investments	Manning May Oil Co. (CO)	Oil and Gas Exploration and Development	Stock Acquisition	NA	9-84
TAIYO OIL CO LTD. (Japan)	Oil and Gas Refining	Natural Gas Exploration Project (TX)	Gas Exploration	Asset Acquisition	NA	5-84
GOVERNMENT OF FINLAND (Neste Oy) (Finland)	Petroleum Refining	Neste Petroleum, Inc. (NY)	Oil and Gas Exploration and Development	Asset Acquisition Subsidiary Establishment	NA	1-84
EDOUARD LECLERC, ET. AL. (France)	Holdings and Investments	Oil Recovery Corp. of America (TN)	Oil and Gas Exploration and Development	Stock Acquisition	NA	11-84
BRITISH PETROLEUM PLC (United Kingdom)	Oil and Gas Exploration and Development	Sohio Alaska Petroleum Co. (AK)	Oil and Gas Exploration and Development	Plant Development	NA	12-84

NA = Not available.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1984 Through December 1984 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
OIL RESEARCH & MGT. SERVICES, INC. (United Kingdom)	Holdings and Investments	Murdoch Petroleum Co. (TX)	Oil and Gas Exploration	Lease Acquisition	NA	6-84
HECTOR RESOURCES, INC. (Canada)	Oil and Gas Exploration and Development	#1 Wilkinson B Well (W.M.T. Operating Co., Inc.) (TX)	Oil Exploration	Asset Acquisition	NA	12-84
BRISTOL OIL & MINERALS PLC (United Kingdom)	Oil and Gas Exploration	Bengal Oil & Gas Corp. (Houston, TX)	Oil and Gas Exploration and Development	Stock Acquisition	NA	2-84
DEMINEX U.S. OIL CO. (Deminex Deutsche Erdbeversorgungs GmbH/Veba AG) (West Germany)	Oil and Gas Exploration and Production	Jet Oil Co. (OK)	Oil and Gas Production	Acquisition	NA	7-84
BOMAC RATTEN LTD. (Canada)	Printing and Advertising	NEO-Tech Inc. (CO)	Oil and Gas Exploration Services Seismic Data	Acquisition for Stock Shares	NA	11-84

NA = Not available.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1984 Through December 1984 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
BRITISH PETROLEUM PLC (United Kingdom)	Oil and Gas Exploration and Development	Sohio Petroleum Co. (TX)	Oil and Gas Exploration and Development	Asset Acquisition/ Plant Development	NA	11-84
BRITISH PETROLEUM PLC (United Kingdom)	Oil and Gas Exploration and Development	Sohio Petroleum Co. International (TX)	Oil and Gas Exploration and Development	Asset Acquisition/ Plant Development	NA	11-84
BRITISH PETROLEUM PLC (United Kingdom)	Oil and Gas Exploration and Development	Sohio Petroleum Co. Weyerhaeuser JV (AR)	Oil and Gas Exploration and Development	Joint Venture	NA	1-84
BRITISH PETROLEUM PLC (United Kingdom)	Oil and Gas Exploration and Development	Sohio/Mobil Oil Well (LA)	Oil and Gas Exploration and Development	Joint Venture/ New Well	NA	9-84
JARDINE MATHESON & CO. LTD. (Hong Kong)	Construction, Building, and Investments	Theo. H. Davies & Co. Ltd.'s Subsidiary (Honolulu, HA)	Oil and Gas Exploration and Development	Asset Acquisition Establishment of Subsidiary	NA	1-84
CIE FRANCAISE DES PETROLES/TOTAL GROUPE/GOVERNMENT OF FRANCE (France)	Investments/ Oil and Gas Exploration	3 Oil Wells Total Petroleum Inc. (LA)	Oil and Gas Exploration and Development	Asset Acquisition	NA	7-84
CRUSADER OIL NL (Australia)	Oil and Gas Exploration and Development	Triton Energy Corp. (TX)	Oil and Gas Exploration/ Coal Exploration	Stock Acquisition	NA	9-84
ROYAL DUTCH SHELL GROUP (Netherlands)	Oil and Gas Exploration and Development	Wilmington Canyon Oil Well (NJ)	--	Asset Acquisition	NA	6-84

NA = Not available.

--: Not applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1984 Through December 1984 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
THE ROYAL BANK OF CANADA (Canada)	Holdings and Investments/ Banking	Drillers Inc. (TX)	Oil Drilling and Drilling Services	Acquisition	NA	9-84
FRIEDRICK K. FLICK (West Germany)	Chemicals/Holdings and Investments	Hughes Drilling Fluids (OK)	Oil Drilling and Mud Service	Joint Venture	NA	1-84

NA = Not available.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A2. Completed Transaction by Size in the Coal Industry from January 1984 Through December 1984 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
BROKEN HILL PROPRIETARY CO. LTD. (Australia)	Holdings and Investments	Utah International Inc. (General Electric Co.) (CA)	Coal Mining	Property Acquisition	2,000.0	4-84
POHANG IRON AND STEEL CO. LTD. (Korea)	Steel Manufacturer	U.S. Group of Companies (Tho. McCall Coal Co., A.T. Massey Coal Co., Island Creek Coal Co., Creek Coal Co., Tanoma Coal Co., Mid-Continent Resources Inc., Kaiser Coal Co., and Tyssen Carbometal Co.)	Coal Mining	Purchase Contracts	105.0	4-84
BRITOL PLC (Scotland)	Oil and Gas Exploration	AMAX Inc. (Greenwich, CT)	Coal Mining	Joint Venture	83.5	4-84
NORCEN ENERGY RESOURCES, LTD. (Canada)	Oil and Gas Exploration and Production	Hanna Mining Co. (OH)	Coal Mining/ Iron and Nickel Ores	Stock Acquisition	26.5	6-84
SGS. NORTH AMERICA (Societe Generale de Surveillance Holding S.A.) (Switzerland)	Financial and Technological Investments	Commercial Testing and Engineering Co. (CEO International Corp.) (IL)	Coal Testing and Production Support	Equity Acquisition	23.0	1-84
COSTAIN GROUP PLC (United Kingdom)	Building Contractors/ Holdings and Investments	Pyro Energy Corp.'s Coal Properties (AL)	Coal Mining	Property Acquisition	18.0	5-84

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A2. Completed Transaction by Size in the Coal Industry from January 1984 Through December 1984 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
PETROFINA SA (Belgium)	Petroleum Refining/Holdings and Investments	Finamax Coal Co. (IN)	Coal Mining and Marketing	Asset Acquisition (50%)/Joint Venture (50%)	16.0	3-84
VEBA AG (West Germany)	Chemicals, Electric Utilities, Oil and Natural Gas	Westmoreland Coal Co.'s JV (KY)	Coal Mining	Stock Acquisition	6.0	2-84
VEBA COAL USA, INC. (Veba AG) (Switzerland)	Coal Mining	Westmoreland Coal Co. (PA)	Metallurgical and Steam Coal	Stock Acquisition	3.7	8-84
PETROFINA SA (Belgium)	Petroleum Refining/Holdings and Investments	AMAX Inc. (CT)	Coal Mining	Joint Venture	NA	2-84
EUROCOAL (Petrofina and Krupp Handel) (Belgium)	Coal Production and Distribution	Cyprus Coal Co. (Amoco Minerals Co.) (CO)	Coal Mining	Contract Agreement	NA	3-84
PETROFINA SA (Belgium)	Petroleum Refining/Holdings and Investments	AMAX Coal Co. (AMAX Inc.) (IN)	Coal Mining	Joint Venture	NA	5-84
PHOENIX MINING CORP. (A.F. Budge Mining Ltd.) (United Kingdom)	Coal Mining	S.S. "Joe" Burford Inc. (W.V.)	Coal Mining	Acquisition	NA	12-84

NA = Not available.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A2. Completed Transaction by Size in the Coal Industry from January 1984 Through December 1984(continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
SAARBERGWERKE AG/SAARBERG/CARBOEX/COAL (West Germany) Saarbruken FRG (Spain)	Coal Mining/ Holdings and Investments	Appalachian Power Co.'s Coal Properties (WV)	Coal Mining	Property Acquisition	NA	7-84
ELECTRIC POWER DEVELOPMENT CO. LTD. Government of Japan (Japan)	Electric Power Distribution	Chitna Coal Project (AK)	Coal Mining/ Feasibility Studies	Joint Venture	NA	9-84
VEBA AG Dusseldorf FRG (West Germany)	Holdings and Investments/ Electric Utilities	Federal Coal Lease (CO)	--	Lease Acquisition	NA	5-84

NA = Not available.

-- : Not applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A3. Completed Transactions by Size in Other Energy Industries from January 1984 Through December 1984

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
KUWAIT PETROLEUM CORPORATION (Kuwait)	Oil and Gas Exploration	Occidental Geothermal Inc. (Occidental Corp.) (CA)	Geothermal Electric Power Generation	Equity Acquisition	350.0	11-84
KLM ROYAL DUTCH AIRLINES PENSTON FUNDS (Netherlands) Abingworth Ltd.	Holdings and Investments	Geothermal Wells (3) (CA)	Oil and Gas Exploration and Development/Drilling Geothermal Wells	Property Acquisition	4.6	2-84
SGS ASSOCIATES AND SOUTHWOLD N.V. (Netherlands)	Holdings and Investments	Enterra Corp. (Radnor, PA)	Energy Services	Stock Acquisition	3.2	3-84
SGS ASSOCIATES AND SOUTHWOLD N.V. (Netherlands)	Holdings and Investments	Enterra Corp. (Radnor, PA)	Energy Services	Stock Acquisition	1.9	4-84

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Sources

Sources used in compiling the information presented in Tables A1, A2, and A3 include:

1. Announcements of Mergers and Acquisitions. New York: The Conference Board, 1984. Various monthly issues.
2. Coal Age. New York: McGraw-Hill, Inc., 1984 and 1985. Various monthly issues.
3. Coal Mining. Chicago: McLean Hunter Publishing Corporation, 1984 and 1985. Various monthly issues.
4. The Cambridge Report on Corporate Mergers and Corporate Policy. Ipswich, Massachusetts: Cambridge Corporation Publishers, 1984 and 1985. Various biweekly issues.
5. Directory of Corporate Affiliations 1985. New York: National Register Publishing Company, 1985.
6. International Directory of Corporate Affiliations. New York: National Register Publishing Company, 1984 and 1985.
7. Mergers and Acquisitions: The Journal of Corporate Venture. Philadelphia: MLR Enterprises, Inc., 1984 and 1985. Various quarterly issues.
8. Moody's Industrial Manual. New York: Moody's Investors Service, 1984 and 1985.
9. The New York Times. Various issues for 1984 and 1985.
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11. Oil and Gas Journal. Tulsa: Pennwell Publishing Company, 1984 and 1985. Various biweekly issues.
12. Predicasts F&S Index of Corporate Change. Cleveland, Ohio: Predicasts, Inc., 1984 and 1985. Various quarterly issues.
13. U.S. Department of Commerce, International Trade Administration, Monthly Report on Foreign Direct Investment Activity in the United States (Washington, D.C., 1984 and 1985).
14. U.S. Securities and Exchange Commission, SEC News Digest (Washington, D.C., 1984 and 1985).
15. The Wall Street Journal. Various issues for 1984 and 1985.

Table 1. Foreign Direct Investment in U.S. Petroleum and U.S. Direct Investment in Foreign Petroleum, 1980-1984

Year	FDI in U.S. Petroleum ^{a,b}	Total FDI in U.S. ^b	Percent Petroleum of Total	U.S. Direct Investment in Foreign Petroleum ^{a,c}	U.S. Direct Investment Abroad ^c	Percent Petroleum of Total
	(billion dollars)			(billion dollars)		
1980	12.2	83.0	14.7	47.6	215.4	22.1
1981	15.2	108.7	14.0	53.2	228.3	23.3
1982	17.7	124.7	14.2	56.8	221.8	25.6
1983	18.2	137.1	13.3	60.3	227.0	26.6
1984	24.9	159.6	15.6	63.3	233.4	27.1

^aPetroleum Industry: includes all phases of petroleum exploration, production, refining, transport, and marketing.

^bThe Foreign Direct Investment (FDI) position is the value of foreign parents' net equity in, and outstanding loans to, U.S. affiliates at the end of the year.

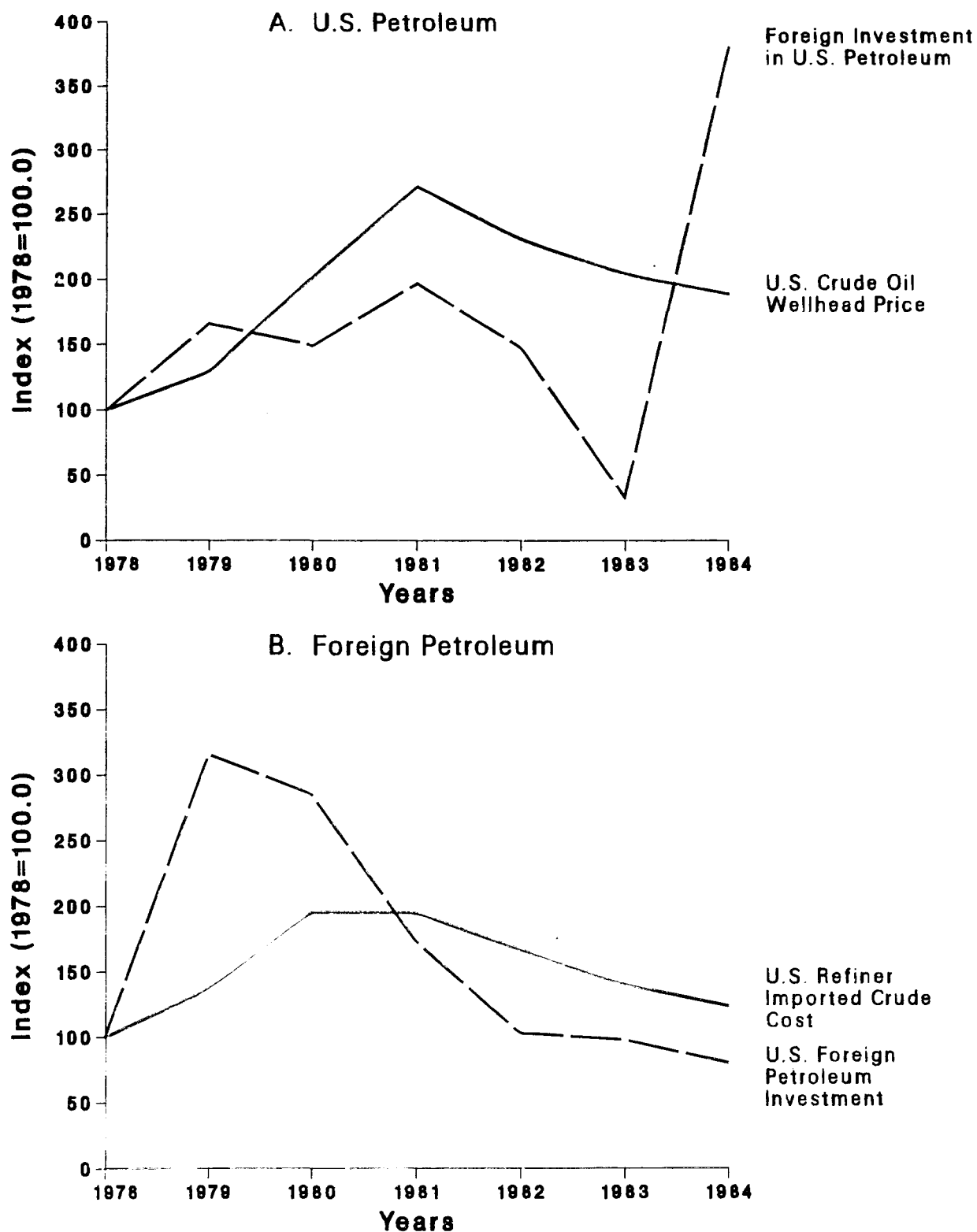
^cThe value of U.S. parents' net equity in, and loans to, foreign affiliates.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, D.C., August 1985).

Additions to FDI is a measure of annual investment flows between foreign entities and their U.S. affiliates. Figure 1 shows that the general downward trend in additions to petroleum FDI of the previous two years was reversed in 1984. In 1984, additions to petroleum FDI were at a record \$6.7 billion. Of this amount, \$4.5 billion was accounted for by Royal Dutch Petroleum Company's purchase of stock in Shell Oil Company. This transaction, which was the largest single FDI transaction in history, increased Royal Dutch Petroleum's ownership in Shell Oil from 69 percent to 95 percent. Exclusive of this extraordinarily large transaction, additions to petroleum FDI totaled \$2.2 billion in 1984, considerably above the \$0.5 billion registered in 1983 but below the previous peak of \$3.0 billion in 1981. The general decline in additions to petroleum FDI, apart from the Shell transaction, is in large part related to the decline in crude oil prices in recent years. Between 1981 and 1984 the constant-dollar wellhead price of U.S. crude oil fell 29 percent while the constant-dollar value of additions to petroleum FDI, exclusive of the Shell transaction, fell 37 percent (based on data shown in Figure 1). The relationship between crude oil prices and investment is more pronounced in the case of outward investment in petroleum. Between 1980 and 1984 the constant-dollar U.S. refiner imported crude oil acquisition cost, an indicator of dollar-denominated foreign crude oil prices, declined 32 percent and constant-dollar additions to U.S. direct investment in foreign petroleum declined 72 percent (based on the data shown in Figure 1).

The profitability of FDI in U.S. petroleum has clearly been higher than the profitability of FDI in the United States, generally. However, as shown in Table

Figure 1. Indexes of Constant-Dollar Additions to Foreign Investment Position and Crude Oil Prices, 1978-1984



Source: o Additions to Investment - U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, (August 1982 and August 1985). o Prices - Energy Information Administration, Monthly Energy Review, DOE/EIA-0035(85/07) (October 1985).

2 and Figure 2, the differential in profitability has tended to narrow.³ During 1983 and 1984, economic recovery and growth led to a rebound in U.S. corporate profitability from the recession lows of 1982. Although U.S. petroleum operations benefited from the resurgence in economic activity (petroleum products supplied rose in 1984 for the first time in 7 years), the profitability of U.S. petroleum has tended to fall from the peak levels of 1980 and 1981. As evident in Table 2, the differential profitability between FDI in petroleum and FDI in all areas declined from about 15 percentage points in 1981 to about 5 percentage points in 1983 and 1984. This narrowing differential is reflected in the decline in the share of FDI accounted for by petroleum from 15 percent in 1980 to 13 percent in 1984, excluding the Shell transaction.

Table 2. Rates of Return on Foreign Direct Investment in 1981-1984

Investment Area	Rates of Return			
	1981	1982	1983	1984
			(percent)	
All Areas.....	7.2	2.7	4.3	6.9
Manufacturing.....	3.4	(^a)	1.8	5.4
Petroleum.....	22.4	13.7	9.2	12.3
Canada ^b	1.4	-16.8	-15.1	-6.5
Europe.....	25.2	17.9	13.4	14.3
Other.....	37.5	4.8	-30.0	-9.9

^aLess than 0.05 percent.

^bEurope consists of Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Sweden, Switzerland, and the United Kingdom.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, D.C., August 1985).

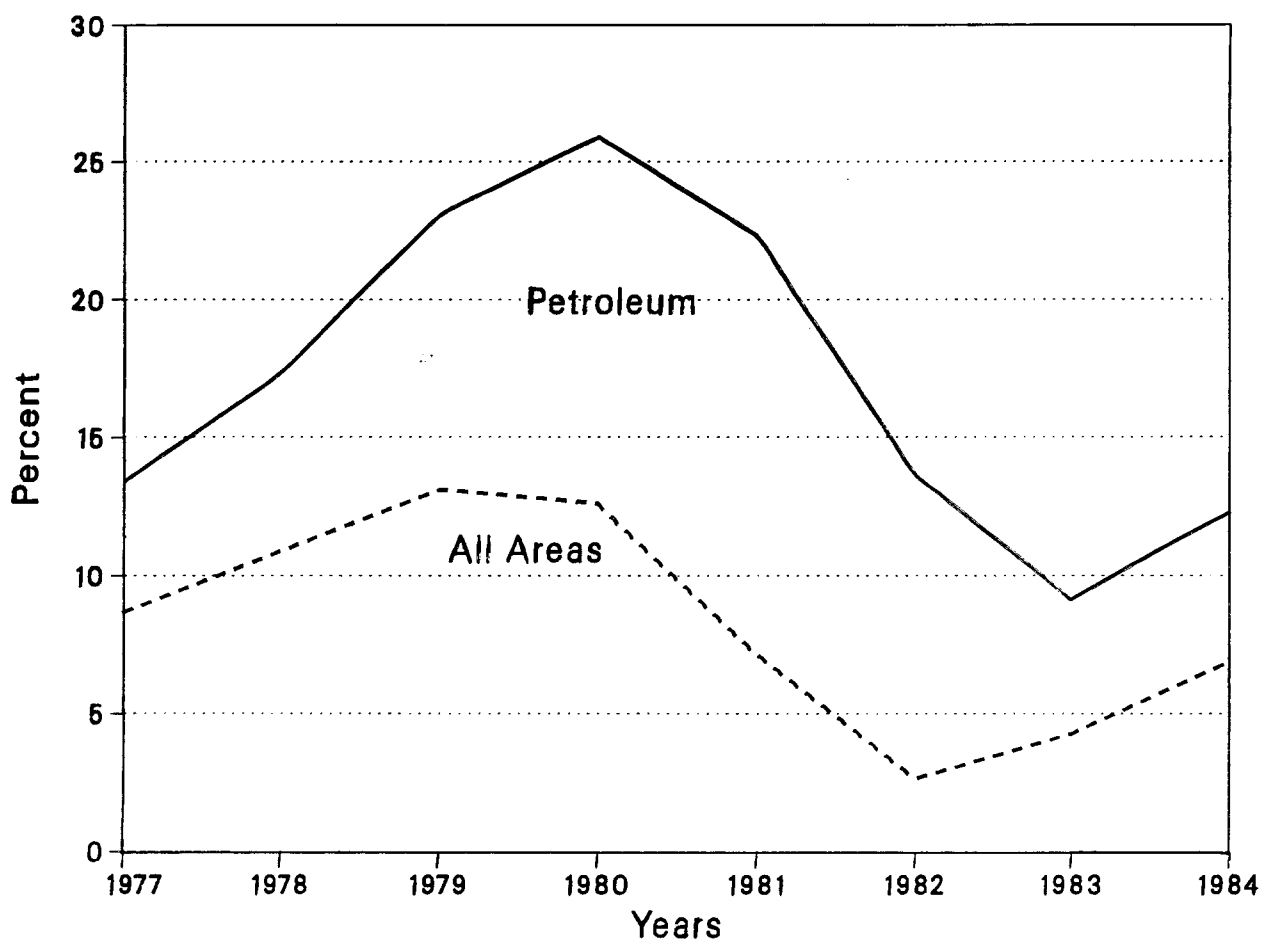
Sources of Foreign Direct Investment in U.S. Petroleum

European interests accounted for over 90 percent of the FDI in U.S. petroleum (Table 3 and Figure 3). Largely through ownership interests in major U.S. integrated petroleum companies, investors in the Netherlands and the United Kingdom accounted for over 80 percent of all FDI in U.S. petroleum in 1984.⁴ The Canadian share of FDI continued to decline in 1984. This decline is in part related to the changes in Canadian energy policy that became effective in 1981.

³The rate of return is defined as the foreign investors' income from foreign-affiliated U.S. companies divided by the average of the beginning-of-year and end-of-year balances of the parents' foreign direct investment position. The foreign investors' income from the foreign-affiliated U.S. company is calculated by including its share in net income (after U.S. income taxes) plus net interest paid to the parents' intercompany accounts, less withholding taxes on dividends and interest. This rate of return measure is not directly comparable to rates of return computed from corporate financial data. An analysis of rates of return based on these latter data is provided in Chapter 4.

⁴Among European countries a noticeable shift in FDI positions between the Netherlands and the United Kingdom occurred in 1982. A British petroleum company changed the pattern by which its U.S. assets were held with the result that an estimated \$4.4 billion in FDI position was transferred from the Netherlands to the United Kingdom in the U.S. Department of Commerce's FDI accounts. This development was treated as a valuation adjustment and therefore had no effect on the total FDI position in 1982. As shown in Table 3, the Netherlands' share of FDI in petroleum fell from 76.0 percent in 1981 to 46.0 percent in 1982, while the United Kingdom's share increased from -0.8 percent to 30.8 percent.

Figure 2. Rates of Return on Foreign Direct Investment in the United States, 1977-1984^a



^aDefined as annual income from foreign direct investment accruing to foreign parents divided by the average of beginning-year and ending-year FDI position of foreign parents.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, (August 1982 and August 1985).

New incentives and opportunities pursuant to greater Canadian ownership of Canadian oil and gas operations increased the attractiveness of investment in Canadian energy for Canadian investors relative to energy investments in the United States. However, beginning in 1984, these policies began to change so as to make Canadian energy attractive to non-Canadian investors as well. The share of petroleum FDI traceable to Latin America, which includes nodes of financial activity located in the Caribbean area, such as the Netherlands Antilles and Bermuda, fell off in 1984.

Table 3. Geographical Sources of Foreign Direct Investment in U.S. Petroleum, 1981-1984

Source	1981	1982	1983	1984	1981	1982	1983	1984
	(million dollars)				(percent of total)			
All Countries.....	15,246	17,660	18,209	24,916	100.0	100.0	100.0	100.0
Canada.....	1,801	1,550	1,391	1,419	11.8	8.8	7.6	5.7
Europe ^a	12,854	15,071	16,326	22,897	84.3	85.3	89.7	91.9
Netherlands.....	11,547	8,098	8,646	9,878	75.7	45.9	47.5	39.6
United Kingdom.....	-124	5,444	5,955	10,917	-0.8	30.8	32.7	43.8
Japan..... ^b	-78	113	-408	-178	-0.5	0.6	-2.2	-0.7
Latin America.....	618	906	829	695	4.1	5.1	4.6	2.8
Other.....	51	20	71	83	0.3	0.1	0.4	0.3
Memorandum:								
OPEC.....	(^d)	6	10	12	(^d)	(^e)	0.1	(^e)

^aEurope consists of Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Sweden, Switzerland, and the United Kingdom.

^bLatin America consists of Western Hemisphere nations excluding the United States, Puerto Rico, the U.S. Virgin Islands, and Canada.

^cThe OPEC countries are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, Venezuela, and United Arab Emirates.

^dData withheld to prevent disclosure.

^eLess than .05 percent.

Note: Total may not equal sum of components due to independent rounding.

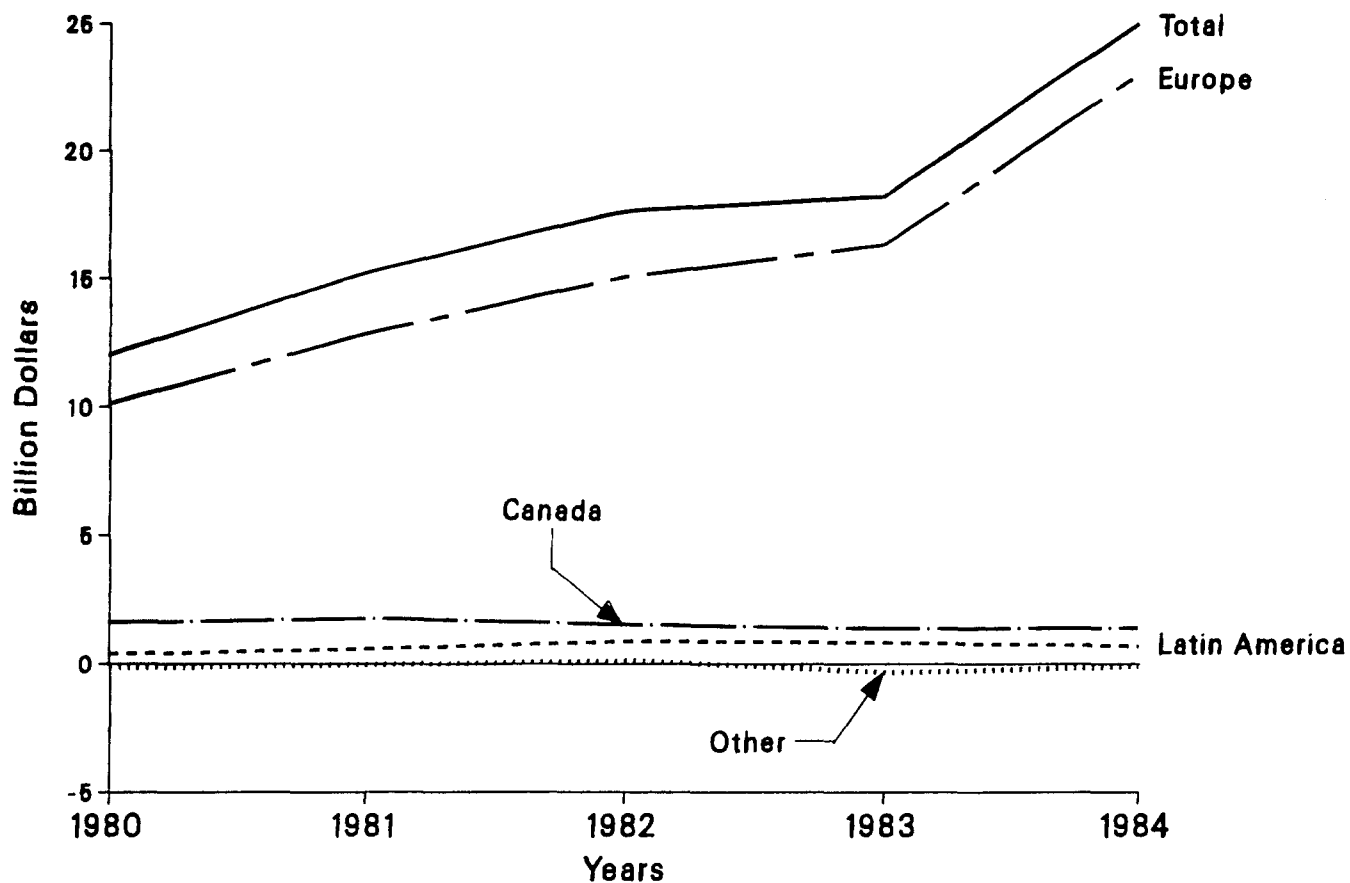
Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, D.C., August 1985).

From Tables 3 and 4, it is evident that OPEC countries' contribution to FDI in petroleum was negligible in 1984. As a share of the OPEC countries' overall FDI position in the United States, petroleum was of little relative importance. However, it should be noted that Kuwait Petroleum Corporation's acquisition of Santa Fe International in 1981, for approximately \$2.5 billion, was apparently classified under the category of "other" by the U.S. Department of Commerce (Table 4) even though Santa Fe International is a significant oil and gas producer and drilling company. If the total value of the Santa Fe acquisition were classified as FDI in petroleum, then Kuwait would probably rank among the top three or four countries with FDI in U.S. petroleum.

The composition of additions to FDI in U.S. petroleum in 1984 was atypical in that equity and intercompany account capital flows exceeded reinvested earnings.⁵ The only other year in which this occurred was 1982 (Table 5). The bulk of the former source is traceable to the \$4.5-billion Shell transaction. Exclusive of

⁵Equity and intercompany account capital flows measure the investment and lending from the foreign parent to its U.S. affiliate on a net basis. Since this measure is on a net basis it can be negative if, as occurred in 1980, repayments by a U.S. affiliate to its foreign parent exceed the investments by the parent in the affiliate. Reinvested earnings are earnings of the U.S. affiliate due the foreign investor less dividends declared.

Figure 3. Sources of Foreign Direct Investment in U.S. Petroleum by Geographical Area, 1980-1984



Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, D.C., August 1985).

this transaction, equity and intercompany account capital flows totaled about \$700 million or about one-half of the value of reinvested earnings. Reinvested earnings more than doubled between 1983 and 1984. This upswing was due to an increase in earnings of nearly \$700 million and a decrease in dividends paid to foreign investors of nearly \$150 million (Table 6).

Table 4. OPEC Direct Investment in the United States, 1980-1984

Investment Area	1980	1981	1982	1983	1984
			(million dollars)		
Petroleum	(^a)	(^a)	6	10	12
Manufacturing.....	51	49	31	-22	-36
Wholesale Trade.....	(^a)	(^a)	(^a)	139	187
Banking.....	110	122	202	205	255
Real Estate	300	376	555	614	669
Other.....	26	2,650	(^a)	3,093	3,638
Total.....	642	3,336	4,045	4,039	4,725

^aData withheld to prevent disclosure.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, D.C., August 1985).

Table 5. Additions to Foreign Direct Investment in U.S. Petroleum, 1977-1984

Year	Total Additions	Equity and Intercompany Account Capital Flows	Reinvested Earnings of Incorporated Affiliates	Valuation Adjustments
1977	653	52	601	0
1978	1,189	303	940	-54
1979	2,144	499	1,645	0
1980	2,102	-59	2,161	0
1981	3,046	919	2,246	-119
1982	2,414	1,409	1,004	1
1983	549	-57	565	40
1984	6,708	5,256	1,401	51

Note: Components may not sum to total due to independent rounding.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, (August 1982, October 1984, and August 1985).

Table 6. Distributed and Reinvested Earnings for Foreign Direct Investment in U.S. Petroleum, 1981-1984

Year	Earnings	Distributed	Reinvested
		(million dollars)	
1981	3,118	872	2,246
1982	2,241	1,237	1,004
1983	1,593	1,028	565
1984	2,282	881	1,401

Source: All 1983 and 1984 data and reinvested earnings for 1981 and 1982 from U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, D.C., August 1985); earnings for 1981 and 1982 from Survey of Current Business (Washington, D.C., October 1984); distributed earnings for 1981 and 1982 were computed as the difference between earnings and reinvested earnings.

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